CLAIMS

1. A system for molding and assembling a fluid spray device, said system comprising two multi-cavity molds (B, C; B'; C') for molding two different parts (100, 200) of said fluid dispenser device, the system being characterized in that the first part (100) is a spray head and the second part (200) is an insert for assembling in said spray head (100), said system comprising means for assembling parts coming from each of the cavities of the first multi-cavity mold (B; B') in pairs always with parts coming from a corresponding respective cavity of said second multi-cavity mold (C; C'), such that the same insert (200) is always assembled in the same spray head, thereby guaranteeing constant spraying performance for each dispenser device assembled from the same pair of cavities.

2. A system according to claim 1, in which the molding and assembly of said head and said insert (100, 200) are performed in a common molding and assembly unit (1), said molding and assembly unit (1) comprising:

· a first mold portion (10) and a second mold portion (20) that are movable in translation towards each other in order to close and open the molding and assembly unit (1);

· each mold portion (10, 20) respectively including a core plate or a cavity plate respectively defining parts of a first multi-cavity mold (B) and of a second multi-cavity mold (C);

· at least one of said first and second mold portions (10, 20) being rotatable in order to bring the parts molded in the first multi-cavity mold (B) up to the parts molded in the second multi-cavity mold (C), thereby forming an assembly zone, with closure of said molding and assembly unit (1) causing said molded parts to be assembled together.

3. A system according to claim 1, in which the molding and assembly of said head and said insert (100, 200) are performed in a common molding and assembly unit (1), said molding and assembly unit (1) comprising:

· a first mold portion (10) and a second mold portion (20) that are movable in translation towards each other to close and open the molding and assembly unit (1);

· the first mold portion (10) defining part of a first multi-cavity mold (B), and including a core plate (11) defining part of a second multi-cavity mold (C), said core plate (11) being mounted to turn about the translation axis of the molding and assembly unit (1), and the second mold portion (20) defining part of a second multi-cavity mold (C), and including a cavity plate (21) defining part of the first multi-cavity mold (B), said cavity plate (21) being mounted to rotate about the translation axis of the molding and assembly unit (1); and

· the core plate (11) being offset perpendicularly from the translation axis of said molding and assembly unit (1) relative to the cavity plate (21) in such a manner that the two plates (11, 21) overlap each other in part so as to define an assembly zone (A), and are partially offset from each other so as to define the two respective multi-cavity molds (B, C).

4. A system according to claim 3, in which each of the core and cavity plates (11, 21) has at least two mold cavities disposed in such a manner that when the molding and assembly unit (1) is closed, at least one cavity is situated in the assembly zone (A) and at least one cavity is situated in the corresponding multi-cavity molds (B, C).

5. A system according to any one of claims 2 to 4, in which, in the assembly zone, each cavity of the core

plate (11) is always situated facing the same corresponding cavity of the cavity plate (21).

6. A system according to claim 1, in which each part molded in said multi-cavity molds (B', C') is identified after molding and is stored separately from the other parts prior to assembly.

7. A system according to claim 6, in which each part of at least one of said multi-cavity molds (B', C') include orientation-defining means, such that during assembly, the angular orientation of the head (100) relative to the insert (200) is always identical.

8. A method of molding and assembling a fluid spray device comprising two different parts (100, 200), the first part (100) being a spray head and the second part (200) being an insert for assembling in said head (100), the method being characterized in that it comprises the following steps:

a) molding said head and said insert (100, 200) in respective multi-cavity molds (B, C; B', C'); and

b) assembling each part coming from a particular cavity of the first multi-cavity mold (B; B') always with a part coming from the same respective cavity of the second multi-cavity mold (C; C').

9. A method according to claim 8, in which said head and said insert (100, 200) are molded and assembled in a common molding and assembly unit (1) having respective multi-cavity molds (B, C) for each of said parts (100, 200), said method comprising the following steps:

a) closing the molding and assembly unit to mold simultaneously a plurality of said heads and said inserts (100, 200) in the multi-cavity (B, C) molds of the molding and assembly unit (1);

b) opening the molding and assembly unit (1), with each portion (10, 20) of the molding and assembly unit (1) supporting one of the kinds of part (100, 200) that are to be assembled together;

c) moving the cavities to bring the molded parts (100, 200) face to face in a central assembly zone (A) of the molding and assembly unit (1), with the same cavity in the first multi-cavity mold (B) always being brought to face the same cavity in the second multi-cavity mold (C);

d) closing the molding and assembly unit (1) to assembly together the molded parts (100, 200) in the assembly zone (A);

e) opening the molding and assembly unit (1) again in order to recover the assembled devices (300); and

f) repeating steps a) to e) above.

10. A method according to claim 9, in which, simultaneously with step d), the molding and assembly unit is adapted to mold new head and insert parts (100, 200) in the multi-cavity molds (B, C) of the molding and assembly unit (1).

11. A method according to claim 9 or claim 10, in which said step c) is implemented by turning at least one of the two plates (11, 21), comprising a core plate (11) supporting the cavities for molding the head (100), and a cavity plate (21) supporting the cavities for molding the insert (12).

12. A method according to claim 8, in which each part molded in a cavity of said multi-cavity molds (B', C') is identified after molding and stored separately from the parts molded in the other cavities prior to assembly.

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